

CLAIMS

1. A pressure sensor comprising lead members partly serving as connector terminals for electrical connection to the exterior, and a gauge case molded using a resin integrally with said lead members and having an opening formed in a part thereof to receive a semiconductor sensor for converting pressure into an electric signal and a signal processing circuit for said semiconductor sensor, said gauge case outputting a processed signal,

wherein a polymethacrylic or other anaerobic adhesive is filled in gaps generated due to curing shrinkage caused after the connector portion metallic terminals have been integral-molded with the resin.

2. A pressure sensor according to Claim 1, wherein the anaerobic adhesive is filled in gaps generated due to curing shrinkage caused after the metallic lead members disposed substantially in an intermediate area of an outer resin case for said gauge case have been insert molded with the resin.

3. A pressure sensor according to Claim 1, wherein a high-permeability adhesive is filled in gaps generated due to curing shrinkage caused after said connector portion metallic terminals have been integral-molded with the resin.

4. A pressure sensor according to Claim 1, wherein an acrylic or other high-permeability adhesive is filled in gaps generated due to curing shrinkage caused after the metallic lead members disposed substantially in an intermediate area of an outer resin case for said gauge case have been insert molded with the resin.

5. An electronic component including lead members partly serving as connector terminals for electrical connection to the exterior, said electronic component being molded using a resin integrally with said lead members,

wherein an anaerobic adhesive is filled in gaps generated due to curing shrinkage caused after the connector portion metallic terminals have been integral-molded with the resin.

6. A method of manufacturing an electronic component, the method comprising the steps of:

(a) integral-molding metallic lead members with a resin, immersing an obtained electronic component in an anaerobic adhesive, and placing the electronic component in a vacuum state to purge out air bubbles remaining in gaps between said metallic lead members and the resin, thereby filling the anaerobic adhesive in the gaps;

(b) taking out the electronic component from a tank of the anaerobic adhesive after the anaerobic adhesive has been filled in the gaps, and leaving the electronic component to stand in the atmosphere, thereby hardening the anaerobic adhesive filled in the gaps; and

(c) cleaning the electronic component to remove the anaerobic adhesive from other areas than the gaps,

whereby the gaps in the electronic component including the metallic lead members integral-molded with the resin are filled with the anaerobic adhesive.

7. An electronic component according to Claim 6, wherein even when degassing is not completely performed in the

vacuum state and air bubbles remain in the gaps between said metallic lead members and the resin, the air bubbles are made immobile after hermetic sealing by the anaerobic adhesive and the hermetic sealing is ensured.

8. A flowmeter comprising an electronic component molded using a resin integrally with metallic terminals partly serving as connector terminals for electrical connection to the exterior,

wherein an anaerobic adhesive is filled in gaps generated due to curing shrinkage caused after the connector portion metallic terminals have been integral-molded with the resin.

9. A flowmeter according to Claim 8, wherein said flowmeter comprise an electronic component being molded using a resin integrally with lead members for supporting a flow measuring device and establishing electrical connection, and

wherein an anaerobic adhesive is filled in gaps generated due to curing shrinkage caused after said lead members have been integral-molded with the resin.

10. An electronic component according to Claim 6, wherein the anaerobic adhesive is filled in the gaps generated in said electronic component including the metallic lead members integral-molded with the resin, the anaerobic adhesive covering up to terminal end surfaces and resin end surfaces for sealing-off.

11. A method of manufacturing an electronic component comprising a resin member and a metallic member, the method

comprising the steps of:

insert-molding said metallic member in said resin member;

immersing said resin member and said insert-molded metallic member in an anaerobic adhesive or a high-permeability adhesive;

exposing said resin member and said insert-molded metallic member after the immersion to a first pressure lower than atmospheric pressure, and exposing both said members to a second pressure higher than the first pressure; and

pulling up said resin member and said insert-molded metallic member from the anaerobic adhesive or the high-permeability adhesive.

12. An electronic component assembled, when used, in a sensor for detecting a physical variable in an automobile, said electronic component comprising:

a metallic member through which an electric signal flows; and

a resin member molded with said metallic member inserted therein,

wherein air bubbles are enclosed in gaps between said resin member and said metallic member by an adhesive.

13. An electronic component according to Claim 12, wherein said sensor is a flowmeter for detecting a fluid flow rate or a pressure sensor for detecting a fluid pressure, and

wherein said adhesive is an anaerobic adhesive or a

high-permeability adhesive.

14. An electronic component according to Claim 12, wherein said sensor is a flowmeter for detecting a fluid flow rate or a pressure sensor for detecting a fluid pressure, and

wherein said adhesive is a polymetallic or acrylic adhesive.